

In the Application of:

Jesse H. GAYTAN

Serial No. 09/801,871

IN THE CLAIMS:

1. (Amended) A process for making granules containing ~~an active ingredient~~ insecticidally active solid composition of Claim 32, said process comprising the steps of:

extruding homogeneous extrudates from an extrudable lubricated mixture comprising ~~an acephate solids active ingredient~~, a dissolvable polymer lubricant, and a solvent for said dissolvable polymer lubricant in an amount sufficient to form said extrudable mixture by dissolving said lubricant, and

drying said extrudates to a residual solvent content of less than 1 wt%.
2. (Amended) A process according to claim 1 wherein said dissolvable polymer lubricant is a poly(alkylene oxide).
3. (Original) A process according to claim 2 wherein said poly(alkylene oxide) is poly(ethylene oxide).
4. (Original) A process according to claim 4 wherein said poly(alkylene oxide) has a molecular weight of less than about 50,000.
5. (Original) A process according to claim 5 wherein said poly(alkylene oxide) has a molecular weight within the range from about 15,000 to about 35,000.
6. (Original) A process according to claim 4 wherein said poly(alkylene oxide) has a crystalline melting point within the range of 63° to 67° C.

In the Application of:

Jesse H. GAYTAN

Serial No. 09/801,871

7. (Amended) A process according to claim 1 wherein said dissolvable polymer lubricant is present in an amount within the range from about 0.2-3 total wt%.
8. (Amended) A process according to claim 1 wherein said dissolvable polymer lubricant is present in an amount within the range from about 0.2-0.75 total wt%.
9. (Original) A process according to claim 1 wherein said mixture further includes an anticaking agent in an amount sufficient to prevent clumping of the dried extrudates.
10. (Amended) A process according to claim 10 wherein said anticaking agent is present in an amount within the range from about 0.5-1.25 total wt%.
11. (Original) A process according to claim 1 wherein said solvent is selected from the group consisting of water, alcohol-water azeotropes, organic solvents, alcohols, ketones, dimethylsulfoxide, mono- or dialkyl ethers of ethylene glycol and their derivatives, anisole, 1,4-dioxane, ethyl acetate, ethylenediamine, mono- and dialkyl ethers of diethylene glycol and their derivatives, or a mixture of any of these.
12. (Original) A process according to claim 1 wherein said solvent is selected from the group consisting of acetonitrile, ethylene dichloride, trichloroethylene, methylene dichloride, benzene, dimethylformamide, and tetrahydrofuran.
13. (Original) A process according to claim 1 wherein said solvent is selected from the group consisting of methanol, isopropanol, and butanol.

In the Application of:

Jesse H. GAYTAN

Serial No. 09/801,871

14. (Original) A process according to claim 1 wherein said solvent is selected from the group consisting of methyl ethyl ketone, toluene, xylene, acetone and methyl isobutyl ketone.
15. (Original) A process according to claim 1 wherein said solvent is selected from the group consisting of dimethylsulfoxide, alcohols liquid at 10° - 100° C, and alcohol-water azeotropic mixtures.
16. (Canceled)
17. (Canceled)
18. (Amended) A process for making acephate granules according to claim 32, wherein said process comprises ~~containing insecticidally effective phosphoroamido(di)thioate~~ comprising the steps:

extruding into extrudates at ambient temperatures an extrudable lubricated mixture comprising ~~phosphoroamido(di)thioate~~ acephate solids, a polymer lubricant that is soluble in a solvent, an anticaking agent, and a solvent for said polymer lubricant in an amount sufficient to dissolve said polymer lubricant and form said extrudable lubricated mixture, into extrudates, and

drying said extrudates to a moisture content of less than 1 total wt%.
19. (Canceled)
20. (Amended) A process according to claim 18 wherein said polymer lubricant comprises a poly(alkylene oxide).

In the Application of:

Jesse H. GAYTAN

Serial No. 09/801,871

21. (Original) A process according to claim 20 wherein said poly(alkylene oxide) comprises poly(ethylene oxide).
22. (Original) A process according to claim 20 wherein said poly(alkylene oxide) has a molecular weight of less than 50,000.
23. (Original) A process according to claim 22 wherein said poly(alkylene oxide) has a molecular weight within the range from about 15,000 to about 35,000.
24. (Original) A process according to claim 18 wherein the extruded mixture is free of ammonium sulfate.
25. (Original) A process according to claim 18 wherein the extruding step is at ambient temperature without control over the extrusion temperature.
26. (Original) A process according to claim 25 wherein said mixture is exposed to a temperature rise of less than about 4° C thru the extruding step.
27. (Amended) A process according to claim 18 further including:
spraying a solution containing a poly(alkylene oxide) and a solvent therefore onto ~~phosphoroamido(di)thioate~~ said acephate solids.
28. (Original) A process according to claim 18 wherein said anticaking agent includes silica.

In the Application of:
Jesse H. GAYTAN
Serial No. 09/801,871

29. (Amended) A process according to claim 18 wherein said extrudable mixture consists of ~~phosphoroamido(di)thioate~~ acephate particulates, a poly(alkylene oxide) dissolved in said solvent, and an anticaking agent, ~~and said solvent~~.
30. (Amended) A process according to claim 18 wherein the extrusion mixture is substantially homogeneous and consists essentially of 0.2-0.75 total wt% of a poly(alkylene oxide) lubricant dissolved in water, 0.01-1.5 total wt% silica powder, ~~2-4 wt% water~~, and said acephate solids. ~~phosphoroamido(di)thioate particulates~~.
31. (Amended) A process according to claim 18 wherein the extruding step is performed at a temperature within the range of 15° to 22° C.
32. (Amended) An insecticidally active solid composition comprising:
~~phosphoroamido(di)thioate solids~~ acephate solids,
a polymeric lubricant that is soluble in a solvent, and
a solvent for said polymeric lubricant in an amount of less than 5 total wt%.
33. (Canceled)
34. (Original) A composition according to claim 32 wherein said polymeric lubricant comprises a poly(alkylene oxide).
35. (Original) A composition according to claim 32 wherein said polymeric lubricant comprises poly(ethylene oxide) or poly(butylene oxide).

In the Application of:

Jesse H. GAYTAN

Serial No. 09/801,871

36. (Amended) A composition according to claim 32 wherein said solvent is selected from the group consisting of water, alcohol-water azeotropes, organic solvents, alcohols, ketones, dimethylsulfoxide, mono- or dialkyl ethers of ethylene glycol, ~~and their derivatives~~, anisole, 1,4-dioxane, ethyl acetate, ethylenediamine, and mono- and dialkyl ethers of diethylene glycol ~~and their derivatives~~, or a mixture of any of these.
37. (Original) A composition according to claim 32 wherein said solvent is selected from the group consisting of acetonitrile, ethylene dichloride, trichloroethylene, methylene dichloride, benzene, dimethylformamide, and tetrahydrofuran.
38. (Original) A composition according to claim 32 wherein said solvent is selected from the group consisting of methanol, isopropanol, and butanol.
39. (Original) A composition according to claim 32 wherein said solvent is selected from the group consisting of methyl ethyl ketone, toluene, xylene, acetone and methyl isobutyl ketone.
40. (Amended) A composition according to claim 32 wherein said solvent is selected from the group consisting of dimethylsulfoxide, alcohols that are liquid at 10° -100° C, and alcohol-water azeotropic mixtures.
41. (Amended) A composition according to claim 32 in the form of a dried granule comprising:
0.1-1 total wt% poly(alkylene oxide),
0.01-1.5 total wt% silica anticaking agent,
acephate and

In the Application of:
Jesse H. GAYTAN
Serial No. 09/801,871

less than 5 total wt% solvent for said poly(alkylene oxide).

42. (New) An insecticidally active solid composition according to claim 32 that is formed from an extrusion mass that comprises:
- acephate solids,
 - a polymeric lubricant that is soluble in a solvent, and
 - a solvent for said polymeric lubricant/binder in an amount of less than 5 total wt% but in a quantity sufficient to form a lubricious mixture of: (i) said acephate solids, (ii) said polymeric lubricant, and (iii) said solvent.
43. (New) An extrudable insecticidally active solid composition comprising:
- acephate solids,
 - a polymeric lubricant that is soluble in a solvent and normally solid at ambient temperature, and
 - a solvent for said polymeric lubricant in an amount of less than 5 total wt% but in a quantity sufficient to dissolve said polymeric lubricant and form a lubricious mixture of: (i) said acephate solids, (ii) said polymeric lubricant, and (iii) said solvent.
44. (New) A composition according to claim 43 wherein said polymeric lubricant comprises a poly(alkylene oxide).
45. (New) A composition according to claim 43 wherein said lubricious mixture is substantially homogeneous and comprises 0.2-0.75 total wt% of a poly(alkylene oxide) lubricant dissolved in said solvent.

In the Application of:
Jesse H. GAYTAN
Serial No. 09/801,871

46. (New) A composition according to claim 45 wherein said composition further comprises 0.01-1.5 total wt% silica powder and 2-4 wt% water.
47. (New) A composition according to claim 43 wherein said polymeric lubricant is normally solid at room temperature and is present in sufficient quantity to bind together said acephate solids when said composition is dried to a residual solvent content within the range of 0.01-0.5 total wt%.
48. (New) An insecticidally active solid composition comprising:
 - acephate solids,
 - a poly(alkylene oxide) lubricant/binder that is soluble in a solvent, and
 - a solvent for said lubricant/binder comprising dimethylsulfoxide in an amount of less than 0.01-0.5 total wt%.